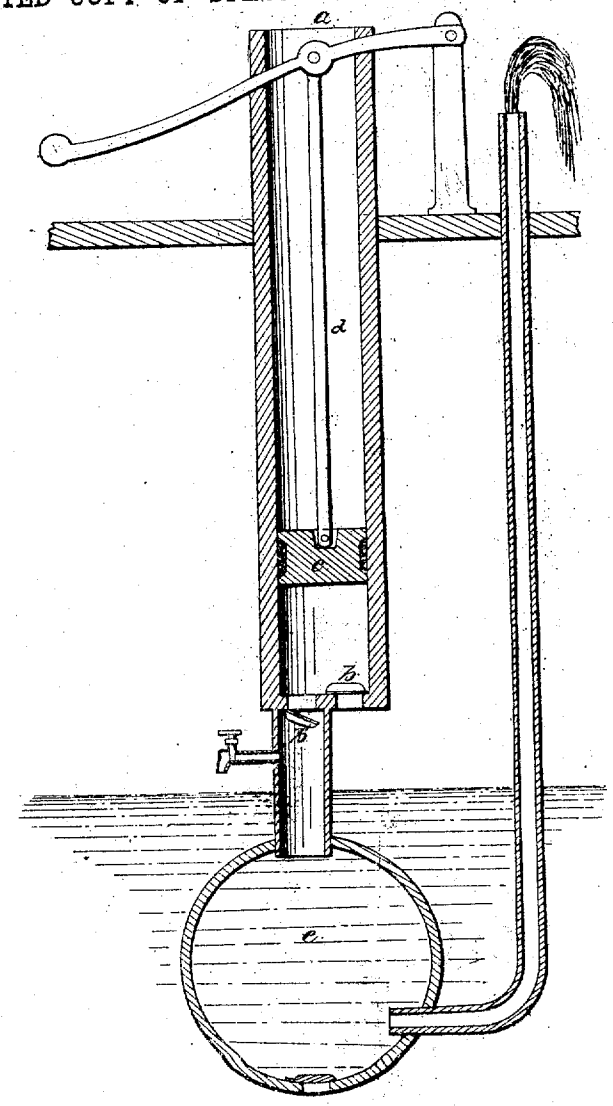
8834X

P. C. Curtis,

Force Pump,

Patented May 22, 1833

NO PRINTED COPY OF SPECIFICATION IN OFFICE.



8834X May 22, 1835 4th.

Philo C. Curtis
Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said Philo C. Curtis himself of his improvement in the construction of a pump for raising water and other liquids.

To all to whom these presents shall come.

Be it known that I Philo C. Curtis of Utica in the County of Oneida and State of New York have invented a new and useful improvement in the construction of pumps for raising water or other liquids and that the following is a full and exact description of the construction and operation of the said machine as invented or improved by me. I form a cylinder similar to those in use for common air or water pumps proportioned in size to the quantity of water or other liquid to be raised I furnish the bottom of the Cylinder with two valves one opening upwards and the other downward, the piston may be made wholly of metal or for packing in the ordinary manner the lever for working the pump is connected to the piston by a rod which is inserted in a mortice in the piston it also secured in the lever by a pin in such manner as to form a joint the lever is supported at one end by a stand on the same platform that supports the pumps or as may be most convenient I fasten a tube over the valve that opens downward which tube extends from the pump to a vessel made either of wood or metal which is placed in the fountain from which it is designed to raise water. this is prepared with a valve on the inside at the bottom opening upward there is also another tube leading from near the bottom of said

Drawing made

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said vessel to the pumps or to any other place where the water is wanted. I insert a cock in the tube leading from the pumps near the pumps, the operation of this pumps is similar to the common forcing pumps with the exception that it is necessary to open the cock in the pipe and let the air escape from the vessel in the fountain and the water to enter when it must be again closed to continue the operation it will be most convenient in operating this pumps to leave the cock open at all times after pumping by that means the vessel in the fountain will be full of water and afford the necessary quantity without waiting for it to fill. I design making the vessel of iron in the form of a globe to hold from four to six gallons for common use. the advantages to be obtained from the use of this pumps are firstly the ease of raising the water in consequence of a steady stream produced by the elasticity of the air. secondly its durability owing to its being worked with air instead of water thirdly its being secure from frost as there is but a simple tube to convey the water which it is not necessary to provide with a valve in the bottom except in case of extreme length or height and lastly its neatness being well calculated for the use of families and for public houses for water beer &c. —— What I claim as my improvement in the above described pumps consists principally in arranging the parts in a form that water or other liquids can be raised advantageously without entering the body of the pumps by means of a vessel as described above and tube leading to the —— crane from the pumps provided with a cock to enable the person working the pumps to fill and discharge the vessel with air and water alternately. I also claim as my improvement the solid metal piston.

Witness
John A. Kittle
Hobart Mann

Philo C. Curtis

67/1073